

2-WIRE LEVEL TRANSMITTER



- Potentiometer or Ohmic input
- Programmable sensor error value
- High measurement accuracy
- Unique process calibration function
- Programmable via standard PC



Application:

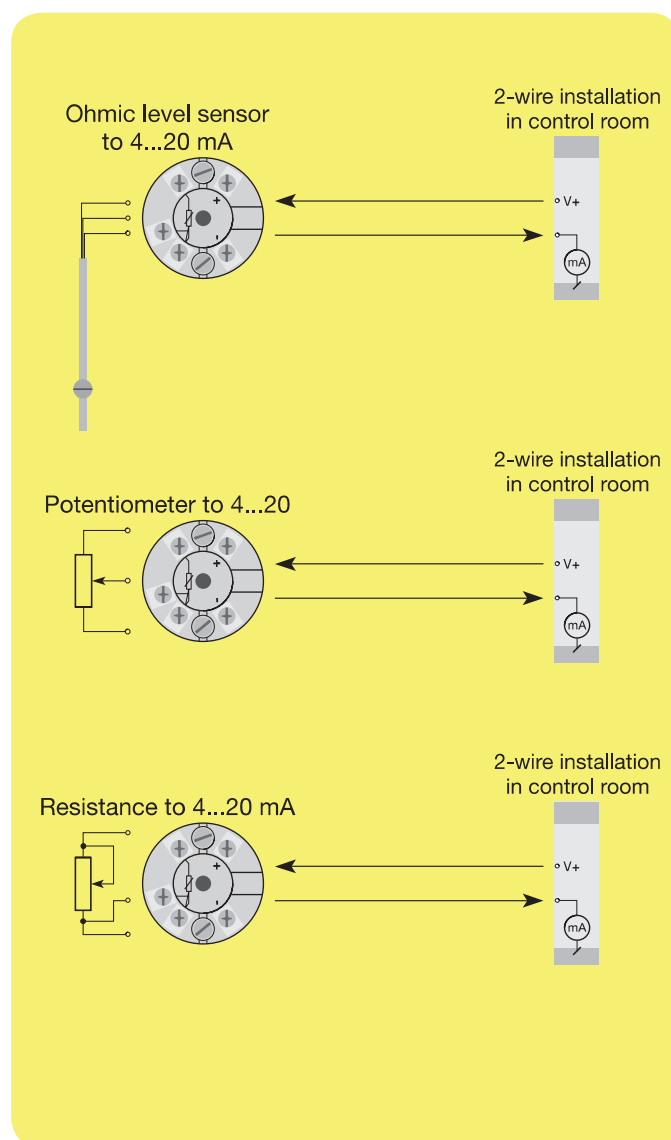
- Conversion of resistance variation to standard analogue current signals, e.g. from Ohmic level sensors or valve positions.
- User-defined linearisation function can be activated.

Technical characteristics:

- Within a few seconds the user can program PR5343A to measure within the defined Ohmic values.
- Continuous check of vital stored data for safety reasons.
- The transmitter is protected against polarity reversal.
- PR5343A is configured to the current task by way of a PC, the PRelevel software and the communications interface Loop Link.
- The PRelevel software has been developed specifically for the configuration of level applications. Among other things, it contains a function for "on line" measurement of input span as well as a linearisation function for volume linear output from horizontal cylindrical tanks.

Mounting / installation:

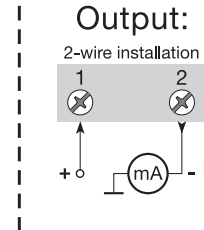
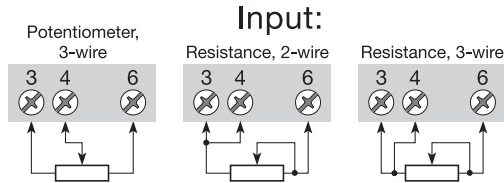
- For DIN form B sensor head or DIN rail mounting with a special fitting.



Order: 5343A

| Type |
|-------|
| 5343A |

Connections:



Electrical specifications:

Specifications range:

-40°C to +85°C

Common specifications:

| | |
|--|---------------|
| Supply voltage, DC | 8.0...35 V |
| Internal consumption..... | 25 mW...0.8 W |
| Voltage drop | 8 VDC |
| Warm-up time..... | 5 min. |
| Communications interface | Loop Link |
| Signal / noise ratio..... | Min. 60 dB |
| Response time (programmable) | 0.33...60 s |
| Signal dynamics, input | 19 bit |
| Signal dynamics, output..... | 16 bit |
| Calibration temperature..... | 20...28°C |
| Accuracy, the greater of the general and basic values: | |

| General values | | |
|----------------|--------------------------|--------------------------------|
| Input type | Absolute accuracy | Temperature coefficient |
| Lin. R | $\leq \pm 0.1\%$ of span | $\leq \pm 0.01\%$ of span / °C |

| Basic values | | |
|--------------|------------------------|--|
| Input type | Basic accuracy | Temperature coefficient |
| Lin. R | $\leq \pm 0.05 \Omega$ | $\leq \pm 0.002 \Omega / ^\circ\text{C}$ |

| | |
|--|---------------------------------------|
| EMC immunity influence | $< \pm 0.5\%$ of span |
| Effect of supply voltage change | $< 0.005\%$ of span / VDC |
| Vibration | IEC 60068-2-6 Test FC |
| Lloyd's specification no. 1 | 4 g / 2...100 Hz |
| Max. wire size..... | 1 x 1.5 mm ² stranded wire |
| Humidity | $< 95\%$ RH (non cond.) |
| Dimensions..... | Ø 44 x 20.2 mm |
| Tightness (enclosure / terminal) | IP68 / IP00 |
| Weight | 50 g |

Electrical specifications, input:

Linear resistance input:

| | |
|---|--|
| Measurement range | 0...100 kΩ |
| Min. measurement range (span)..... | 1 kΩ |
| Max. offset..... | 50% of selec. max. value |
| Cable resistance per wire (max.) | 100 Ω |
| Sensor current..... | $> 25 \mu\text{A}$, $< 120 \mu\text{A}$ |
| Effect of sensor cable resistance (3-wire)..... | $< 0.002 \Omega / \Omega$ |
| Sensor error detection..... | Yes |

Output:

Current output:

| | |
|-------------------------|--|
| Signal range | 4...20 mA |
| Min. signal range | 16 mA |
| Updating time..... | 135 ms |
| Load resistance | $< (V_{\text{supply}} - 8) / 0.023 [\Omega]$ |
| Load stability | $< \pm 0.01\%$ of span/100 Ω |

Sensor error detection:

| | |
|---------------------------|-------------|
| Programmable..... | 3.5...23 mA |
| NAMUR NE43 Upscale | 23 mA |
| NAMUR NE43 Downscale..... | 3.5 mA |

Marine approval:

| | |
|---|------------------------------------|
| Det Norske Veritas, Ships & Offshore .. | Standard for Certification No. 2.4 |
|---|------------------------------------|

Observed authority requirements: Standard:

| | |
|--------------------------------|------------------------|
| EMC 89/336/EEC, Emission | EN 50081-1, EN 50081-2 |
| Immunity | EN 50082-2, EN 50082-1 |
| Emission and immunity | EN 61326 |

Of span = Of the presently selected range